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ABSTRACT

A simplified method to gather and analyze cost data is presented for administrators of Handicapped Children's Early Education Programs, and specifically for members of the Technical Assistance Development System, North Carolina. After identifying benefits and liabilities associated with analyzing program costs, attention is focused on the internal and external audiences who need program cost data, the desired outcomes resulting from providing certain cost information to certain audiences, and general requirements of a cost analysis system. It is suggested that designing a cost analysis system for early intervention programs would involve determining program components and the specific tasks/activities, along with categories of cost data (personnel and nonpersonnel costs, and in-kind contributions). Implementing the cost analysis system is discussed in terms of a trial period, staff support, data control and confidentiality, and leadership and coordination. Additional areas that are addressed include: analyzing total program costs and unit costs, types of decisions/judgments that will be encountered by categories of audiences; and the mechanics of developing reports, including a model for communicating with a specified audience for a specific purpose. Supplementary materials include: program costs form, sample activity code descriptors, a daily time/activity log, a sample line item budget matrix, cost reporting worksheets, and a list of 11 cost and benefits reports. (SEW)

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Managing Editor: Daniel Assael
Editorial Assistant: Iqlia Grennan
Cover Design: Daniel Rodgers

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Gary Lambour, U.S. Special Education Programs, Project Officer to TADS
Pascal Trohanis, TADS Principal Investigator

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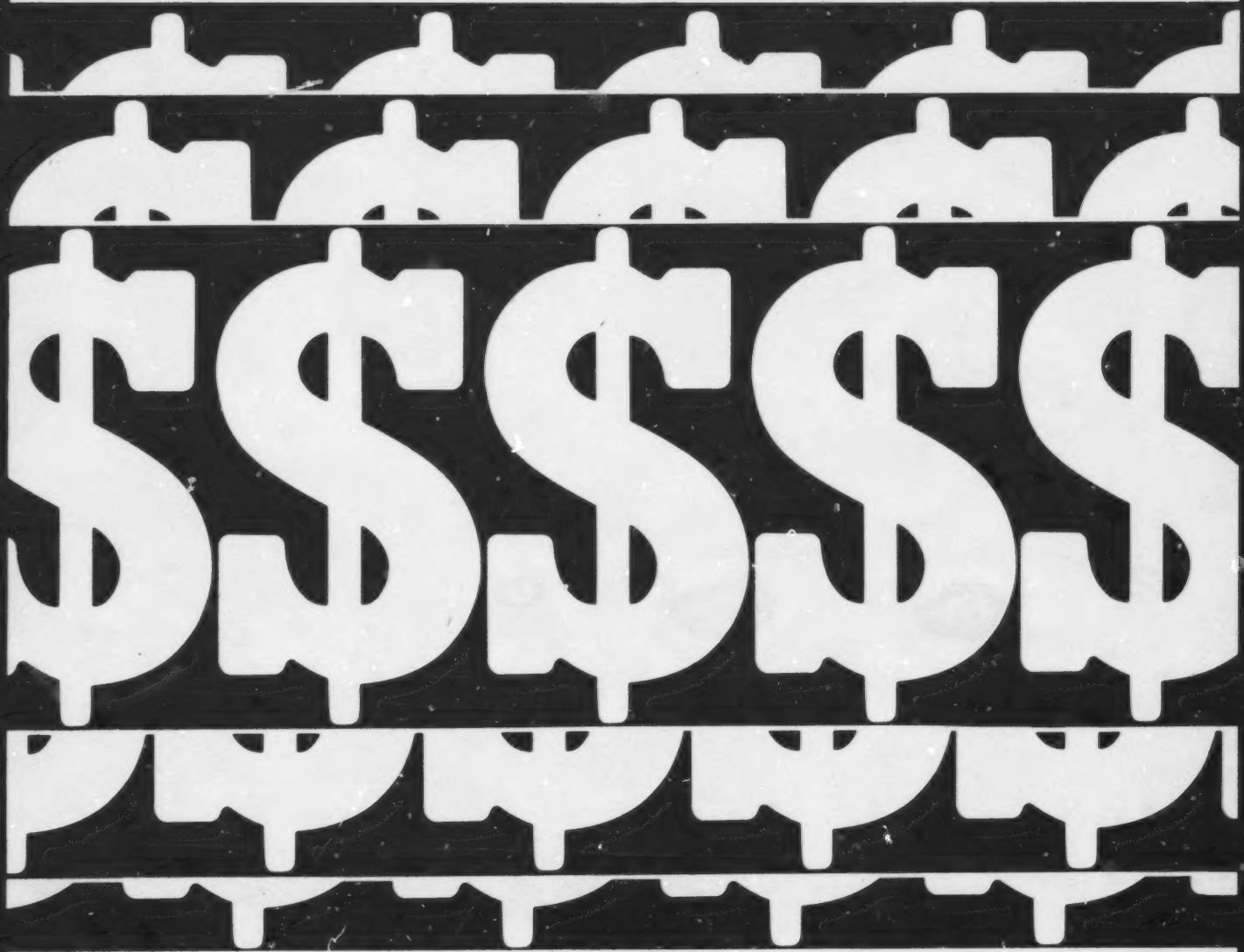
Analyzing Costs of Services



By James O. Cox
& Talbot Black

Managing Editor:
Daniel Assael

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Analyzing Costs of Services

PREFACE

Requests for technical assistance to analyze program costs have increased at TADS in recent years as TADS' clients (programs funded through the federal government's Handicapped Children's Early Education Program--HCEEP) feel increased pressure to provide cost information to their fiscal agencies. Inflation, competition for scarce resources, and recognition of the importance of early intervention have made accurate accounting of costs and estimating of future costs a necessary part of any HCEEP or other early intervention program. In the current economic climate, an early intervention program must be able to analyze and present the dollars and cents of its operation and show its affordability.

TADS responded to our clients' need by seeking out the ideas and experiences of knowledgeable consultants including directors of HCEEP projects that had successfully analyzed their program costs. TADS has shared these ideas with many HCEEP projects through small-group meetings and individual consultations. This book synethesizes these ideas and experiences and presents strategies to help individual projects design and implement their own cost analysis systems.

This document provides a step-by-step method (especially for those with a limited background in cost accounting or economics) to gather and analyze cost data. That information will help program staff effectively advocate services needed by young special children and their families.

This book's Introduction provides background information that defines cost analysis and explains how it differs from similar terms. And, some benefits and liabilities associated with analyzing program costs are discussed. Following the Introduction, six chapters present information on planning and

implementing a system to gather cost data, analyze the data, and use the results to develop specific arguments for specific purposes. Following these how-to chapters are appendices which provide sample forms for data gathering and a bibliography of published cost studies of human service programs and methods for analyzing costs.

This document is designed to be read first quickly to gain a general understanding of the entire process. After the reader has identified a specific need for cost data, we encourage a detailed review of each chapter in the sequence presented. An adaptation of our procedures may meet your individual requirements.

We must recommend that you consider the time, effort, and other costs to conduct a special study compared to your usual accounting procedures. A change in methods must be sufficiently beneficial to justify any extra effort.

Though we credit the ideas and experiences which provide the examples and processes described in this document to all who have worked with us over the years, we would like to specifically acknowledge Tom Scheid, Terry Berkeley, Dave Williams, Louise Phillips, Harold Smith, Fran Hale, Bill Gingold, and Pat Vandiviere.

James Cox

Talbot Black

September 1982

Chapel Hill, North Carolina

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INTRODUCTION

All of us have heard or used one or more of the following terms: cost analysis, cost-effectiveness, fiscal efficiency, cost-benefit, cost accountability, and so forth. These terms have different meanings, but they are similar and often are used interchangeably. "Cost analysis," the term used in this document, does not imply a relationship between costs and benefits as the other terms do. Rather, "cost analysis" refers to the process of accurately gathering information about the costs of developing, maintaining, or expanding a program and ways to organize that information to use it for a variety of purposes. "Cost analysis" as described here is a necessary step before judgments can be made about program effectiveness and benefits related to costs.

Most readers of this document probably have conducted some form of cost analysis. For example, preparing a budget for a proposal indeed involves gathering and organizing information concerning the amount of dollars needed for personnel, equipment, telephone, and so forth. Specific funding sources are identified, and justifications are made for certain expenses. The amount of money available from the funding source is determined, and dollars in some

line items are adjusted to make a more competitive proposal. Finally, a budget is presented in a format required by the funding source.

Many problems arise as a program director attempts to prepare a budget without adequate and accurate data. And the difficulties increase when cost justifications are needed and supporting data is unavailable. The time required to search for necessary cost information also may not be available, especially with the press of close deadlines, and the quality of the overall proposal may suffer.

Benefits of Cost Analysis

A cost analysis system, such as the one described in this book, can lessen or eliminate many common problems and can help a program director develop more competitive proposals and funding requests. Estimates and justifications for costs can be arrived at more easily, and presentations of cost information can be more meaningful and authoritative.

Establishing and maintaining a cost analysis system:

** Improves your fiscal management. An ongoing cost analysis system shows when there is a need for budget revisions and simplifies the preparation of new budgets. Complete and accurate budget reports can easily be related to other reports.

** Expands your understanding of how your program operates and thus contributes to improved program and staff management. The major costs for any early childhood project are personnel -- i.e., salaries and salary-related expenses. An analysis of a program's personnel costs will show how staff spend their time. Such a time analysis may foster improvements in time management and can contribute to the project's ability to communicate staff roles and responsibilities.

** Develops a true picture of program costs. A detailed analysis can generate more accurate and complete cost figures --i.e., direct service costs, support service costs, administrative costs, and start-up costs vs. maintenance/ongoing costs.

** Allows you to help other service providers with financial planning. If you help other programs use all or a portion of your services, one of their immediate needs will be cost information and level of effort for personnel. They may want very specific and detailed information -- e.g., "What equipment should we purchase and what will it cost?"

"What supplies should we order?" "How much money should we allow for child-find and screening activities?"

** Provides information about your program which is easily understood. The ability to speak clearly about the costs of your program is extremely useful because any audience, even those without an extensive background in early childhood special education, can understand and relate to cost figures. The very act of presenting accurate and detailed cost data usually is received as an unexpected and appreciated bonus and can positively reflect on your entire program.

Liabilities of Cost Analysis

As you carry out a cost analysis of your program and use the cost information, you will begin to experience its benefits, but you are also likely to encounter some of its limitations and liabilities.

Detailed financial information may invite unjustified and misinformed comparisons. For example, one approach for working with severely physically handicapped children requires high involvement of expensive specialists (occupational and physical therapists, medical doctors, etc.). A similar approach which requires less involvement of the specialists and more involvement of trained para-professionals will cost less money, but both approaches may be necessary to meet a variety of invididual needs. One cannot simply choose the least expensive approach.

Some other limitations and liabilities of cost analysis:

** Individual salaries often are considered a private matter, but a cost analysis might open this information to public inspection.

** The detailed analysis of how staff use their time -- a necessary part of any cost analysis system -- can be threatening.

** The time required to conduct a cost analysis will compete with other program activities. Often a director must decide what is more important -- direct services or administrative activities.

** In this era of decreasing tax dollars for human services, any investigation of costs may be seen as a cost-cutting action, and resistance may result.

One of the most powerful arguments against using cost data (and consequently investing effort in cost analysis) is that it encourages decision-makers to rely too much on cost factors when making decisions about meeting human needs. A comment by a participant at one of TADS' small-group meetings illustrates this point:

> We should not always be putting a price tag on human services. We shouldn't have to base decisions involving human needs primarily on the amount of money available. I understand the notion of limited resources, but we shouldn't have to weight human needs and monetary considerations on the same scale. Our services are for profoundly/severely handicapped children. Their gains in development will always be modest, and our services, delivered in a humane and appropriate way, will always be expensive.

Though a cost analysis has its limitations, we cannot afford to ignore cost issues. We must maintain a balance by using the language and arguments of economics to support our requests for maintaining and expanding early intervention services. An important first step is for programs to know the true costs of operation. The cost analysis procedures described in this document may help.

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Chapter One

IDENTIFYING NEEDS FOR COST INFORMATION

Your cost analysis system's design should be based on your answer to the following three questions: Who needs to know about the costs of your program? What do they need to know? Why do they need to know it? Your answers to these three questions will shape your entire cost analysis system.

Answering these questions involves two interrelated tasks:

1. Identifying the specific audiences (people and organizations which will benefit from information about your program costs) and gathering pertinent information about each audience.

2. Developing goal statements which detail what you hope to accomplish by providing cost information to each audience.

At this beginning stage, do not limit your thinking. Seek to identify all potentially important goals and audiences. Later on you probably will select the most important goals and audiences based on your own priorities and resources.

Internal and External Audiences

Think about your audiences and their information needs in two distinct groups: internal and external. Internal audiences (you, your staff, advisory board, your agency head, and others in your agency) represent the most important users of cost information and will need it in its most detailed form. External audiences are also very important. Sometimes the same cost information may be needed for internal and external audiences.

To identify your internal needs for cost information: 1) divide your program into major activity areas or program components; 2) review goals and objectives associated with each area; and 3) develop questions which probe issues or provide important information about costs associated with each area. Figure 1 provides some ideas.

To identify external audiences: 1) review all the organizations, agencies, individuals, and other groups to whom you are providing or plan to provide information about your program; and 2) determine which of these audiences require or would benefit from cost information. Figure 2 provides descriptions and examples of five categories of external audiences and can help you identify other important audiences.

Try to be specific when listing external audiences. Rather than just listing "state legislature," list "Representative Sally Jones," "Chairperson of the Human Resources Study Commission," etc.

Goals

Detail exactly what you want to accomplish by providing certain cost data to certain audiences. Figure 3 captures that information. In the first section, list as much identifying information about each audience as possible. At a minimum you should list the contact person's name and title and the organization's address and telephone number.

The second section, desired outcome, will capture perhaps the most important information. Desired outcomes should reflect a blend of the benefits that the audience desires and those the program will accrue. In some circumstances the benefit for the program will be to meet the mandates of laws and regulations (e.g., a financial status report which accounts for funds expended during each grant or contract period usually is required by government funding sources).

Figure 1

Sample Questions to Identify Internal Cost Information Needs

Program Areas	Sample Questions
Direct services for children and families	-- How much do classroom services cost? -- What does the average home visit cost? -- How much does specialized therapy (speech, physical, etc.) cost by type of handicapping condition? -- How much do we pay for services from other programs? -- How much do parent meetings and individual parent conferences cost?
Training and services for other programs; materials; development; etc.	-- What rate should we charge other programs for special therapy sessions? -- How much does one two-day training session cost? -- What are the costs for developing, producing, and distributing our materials (newsletter, manuals, etc.)?
Administration and management	-- How much are we spending on staff development? -- What does supervision of teachers, aides, etc., cost? -- What did our public relations campaign cost? -- How much do our fund raising activities cost?
Program evaluation	-- Do costs for program evaluation differ in years one and two? -- What are the costs for measuring child progress?

Figure 2

Potential External Audiences for Cost Information

Categories of Audience	Description	Examples
Accountability	Organizations or agencies which must receive the program's expense reports	School board, state or federal funding agency, quality review boards, etc.
Future funding sources	Individuals and public and private organizations and agencies able to provide financial support (money equipment, services)	Foundations, state and federal agencies, individuals, community organizations, public schools, county and city government, etc.
Policymakers	Individuals and groups who make or influence public policy (laws, regulations, and appropriation levels) concerning services for young handicapped children and their families	Federal agencies, U.S. Congress, state legislature, state agencies, school boards, county commissioners etc.
Advocacy groups	Organizations which can and will advocate for increasing the quality and quantity of services for young handicapped children and their families	Parent groups, Association for Retarded Citizens, Council for Exceptional Children, etc.
Other professionals and service providers	Individuals, organizations, agencies and groups representing the field of early education or currently providing or initiating services for the field	Public schools, day care, Headstart, professional organizations (e.g., CEC, NAEYC), etc.

Figure 3

Worksheet for Capturing Cost Information Needs

Section I: Information on the Audience

Organization's Name:

Address:

Phone:

Contact Person:

Other Information:

Section II: Desired Outcomes:

Section III: Cost Data Needed:

Other outcomes may be to:

** influence public policy or law to increase the quality or quantity of services;

** obtain funds for specific activities or continuation of all services;

** provide new or more detailed knowledge about the costs of services to the professional field;

** assist other service providers in fiscal planning prior to adopting your program's model;

** improve fiscal management, enhancing the overall operation of the program.

The outcomes above are stated in general terms. However, you should state your desired outcomes as specifically as possible. For example, the first outcome listed might be more specific: By the beginning of the next state legislative session, the program will help establish adequate appropriation levels to appropriately serve the educational and developmental needs of very young (birth to three) handicapped children and their families.

The third section, cost data needed, should indicate exactly what information is needed to accomplish the desired outcome with the specific audience. For example, the outcome stated above implies a need for cost information to define adequate appropriation levels. You may decide that the following four pieces of cost data are all that is needed.

** Unit costs of various services (e.g., one hour of physical therapy, one-hour home visit, etc.).

** A per-child, per-year cost figure for a home-based approach.

** A per-child, per-year cost figure for a center-based approach which includes a sample of severely to mildly handicapped children.

** A per-child, per-year cost figure for a multiservice approach which indicates the percentage of each component cost (e.g., home-based services to the child and family, center-based child services, supplemental services to the family, specialized therapy, and administrative costs).

After you begin the process of completing the three sections of the form shown in Figure 3, you will discover that similar data will help accomplish a variety of outcomes applicable to a variety of audiences.

Chapter Two

DESIGNING A SYSTEM TO GATHER COST DATA

AUTHORS' NOTE: After you have identified your needs for cost information, you should examine your current methods for documenting program expenditures. Possibly, your current system may suffice. Also, we strongly encourage you to consider carefully your need for detailed cost data. The procedures presented in this chapter will help you develop as detailed a system as needed. Some programs may need to invest considerable time and effort because only very detailed information will address their needs. However, the time and effort necessary to design and implement a system which can gather every bit of cost data could be quite prohibitive. We encourage you to limit your collection of cost data to only that which will actually be used.

General Requirements of a Cost Analysis System

A cost analysis system must gather data accurately and completely and provide information when it is needed. For some cost information needs, exact accuracy is required (e.g., a financial status report which accounts for all expended funds, to the penny). Fortunately, in most circumstances when exact cost figures are needed, the accounting procedures required by law usually produce the data needed. The degree of accuracy necessary to meet other cost information needs must be established. The higher the degree of accuracy, the more rigorous and precise the system must be.

The system should gather data about all the relevant costs of your program. While you will not necessarily report all the cost figures to every

audience, complete cost data is essential for some purposes and audiences. For example, if you wished to request funds from a public school system for a home- and center-based program, then your cost analysis system should gather all the costs associated with its operation, such as personnel costs for home- and center-based staff, travel costs for home-based workers, administrative costs, training costs, supplies, special equipment, support personnel (e.g., therapists and psychologists), and other miscellaneous costs. Your system should also determine the costs of space for classrooms, offices, and parent meeting rooms; maintenance; utilities; playground; and student transportation. These latter costs would become very important if the school board decided to fund your program but thought you should be located in a nonpublic school setting.

The final requirement of the cost analysis system is timeliness. A system which cannot provide you with cost figures when you need them is of little use. Also, when you seek cost data in a hurry, you often sacrifice accuracy and detail. Therefore, your system should collect cost data well ahead of the time you expect to need the data.

A Cost Analysis System for Early Intervention Programs

Early intervention programs generally need a cost analysis system that can reflect their wide array of program activities and be flexible enough to address a variety of purposes and audiences. To design such a system, begin with the program itself.

Determining Program Components

The first step is to separate your total program into its component parts. Most early intervention programs can be divided into at least five

components: services to clients (children and families), administration and management, staff training, public awareness or public relations, and program evaluation. Assess your program and modify these components as needed.

The actual components for any project should be consistent with the structure and goals of the project. The following example illustrates:

> Project DO GOOD is structured to serve young handicapped children ages birth to three in a home-based approach and three- to five-year-olds in a center-based approach. The program also has the goals of providing specialized services to all parents, developing materials for the general public to increase awareness of young handicapped children, and developing materials for professionals in early childhood special education. A break-out of components consistent with the structure and goals is: classroom services component, home-based services component, specialized parent services component, development and dissemination of materials component, and administration and management component (which includes staff development and program evaluation).

When you have a component break-out consistent with your project's structure and goals, make sure the components are compatible with your specific needs for cost information. You may need to rearrange some of the components to capture costs associated with certain needs. The following example illustrates:

> Project DO GOOD, currently funded from one source with a three-year grant, has some good leads for funding after completion of the grant. A local college may support a demonstration classroom and related parent services if the classroom can be used as a student practicum site. The local mental health center will support home-based services for infants birth to age 3 and some center-based parent services. The local United Way is planning a public awareness campaign and may provide financial support for assistance in the campaign. A local foundation has been contacted about supporting staff development and training. All four sources have indicated that they will support necessary administrative and management activities. The project decided for cost analysis purposes to divide the program into six components: classroom services (ages 3 to 5) and parent services component, home-based (birth to age 3) services and related parent services component, staff development component, public awareness component, administration and management

component, and development and dissemination of professional materials component.

Listing Major Activities

The next step to design the system is to break each component into major tasks or activities. The activities should represent a logical task analysis of the entire component. Appendix A provides an example of the activities associated with each of Project DO GOOD'S components. (Note the left-hand column titled "Program Outline of Components/Activities.")

As you develop your list of activities, be sure to include those activities that may only happen once or twice yearly and those that occur daily, weekly, or monthly.

Once completed, your list of major tasks and activities by program components represents the basic structure of your cost analysis system. At this point, check to assure that the system can meet all your cost information needs. Can you see a clear relationship between the list and each cost analysis question you wish to answer? Will you be collecting more information than you need? Is any part of your program missing?

A Special Concern for Demonstration Projects

Early intervention programs that begin as demonstration/model development projects with special funding (e.g., HCEEP demonstration projects) face one particularly troublesome cost analysis question: How can the special costs related to demonstration and model development be separated from costs of regular operation? Unless they can be separated, total program costs may appear to be unreasonably high to potential sources for continued funding. Separation is difficult, since both efforts are interrelated and usually are carried out by the same people.

The way you break down your major activities and tasks for your cost analysis system can help you with this problem. As you review each activity in each component, ask this question: Do we wish to continue this activity after our special funding ends? If the answer is yes, then that activity should be considered a part of your program's operating costs. If the answer is no, then the activity is likely to be unique to the demonstration/model development part of your project. If a clear yes-or-no answer is difficult, try to break down the activity further; re-state the activity so that a simple yes-or-no answer is possible.

Activities that are likely to fall into the demonstration/model development area are:

** Activities required by your current funding source and are not likely to be continued with other funding sources (e.g., detailed semi-annual progress reports required by most federal sources, specialized research or evaluations, etc.).

** Activities associated with developing your service approach (i.e., activities which would not need to be repeated by another organization replicating your approach) or activities that occur only once during the life of the program (i.e., installation/initial activities).

Categories of Cost Data

Your cost analysis system should be able to gather and analyze three broad categories of cost data: personnel costs, nonpersonnel costs, and in-kind contributions. Personnel costs are all costs related to full- and part-time employees -- salaries and fringe benefits paid by the employer (social security, retirement, health and life insurance, substitute teachers, etc.). Nonpersonnel costs are all the other costs paid for by your program. In-kind contributions are other sources of support that your program doesn't pay directly, but which contribute to the program, such as volunteers, services provided by another agency, donated equipment and supplies, etc.

Appendix A, which displays the three cost categories in relationship to the list of program components/activities for project DO GOOD, illustrates a complete cost analysis system. The remainder of this chapter describes how to capture cost information for each category.

Personnel Cost Data

Personnel costs usually account for 60 to 80 percent of an early intervention program's budget. When considering personnel cost data, money equals time. Therefore any system that analyzes personnel costs must capture the amount of time each staff person spends on various project components and activities. Time logs are the most accurate method to determine this information. Your component and activities break-out provides the basis for designing your time logs. Using the list of activities you developed for each component, assign a code for each separate activity (and a description of the codes to assure each staff person uses the codes correctly). Appendix B provides an example of the codes and descriptors for Project DO GOOD. Note that an activity (e.g., record keeping) can occur in several components but requires only one code assignment.

The next step is to design time log sheets. The log sheets should provide space to record the staff person's name, the date, a brief description of each activity, the amount of time spent, the code for the activity, the component under which the activity occurred, and comments. Appendix C provides an example of a daily log sheet for Project DO GOOD. Weekly and monthly time logs also can be used.

Time logs should be kept throughout a time period long enough to capture a representative sample of all the program's activities. The ideal system would log time continuously for a full year, since most programs have a 12-

month cycle of events. However, time sampling at different times during the year can be effective if continuous logging is not feasible or necessary.

Estimation is another method to determine the amount of time each staff person spends on each activity. Estimates are quicker and easier to do than time logs, but estimates are less accurate. Most people tend to underestimate time when projecting into the future and overestimate when looking back. If you think your estimates may not be accurate, use time logs for a short period (one or two months) to verify your estimates.

After time data have been collected or estimated, they must be summarized before being converted into cost data. Using a form like the one in Appendix D, you can summarize each staff person's time across activities.*

How often you choose to summarize the data from time logs should depend largely on your own internal cost information and other program management needs. There are some advantages to summarizing time data frequently. First, the results can be returned to staff members for their own use in planning and managing their time. Second, frequent summarizing can uncover weaknesses or confusions in the time log procedures and allow for correction before too much time has passed. Third, the longer you wait before summarizing, the more complex and burdensome the task becomes. And fourth, frequent summarizing helps keep your cost analysis system an integral part of program operations.

After the data from time logs have been summarized, convert the time data to cost data. To convert time data into cost data as accurately and fairly as possible, convert a person's time for each activity into a percentage figure. To calculate this percentage figure, divide the amount of time recorded for an

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*As you may note, person work days per year is the unit of time used on the form in Appendix D. However, the time collected on log sheets (Appendix C) is usually in minutes. A conversion of minutes to days can be accomplished by dividing the number of minutes by 480, the number of minutes in an 8-hour workday.

activity by the total amount of time recorded by that person for all activities in the time period. For example, if a half-time employee recorded a total of 105 workdays and five of those days were spent developing a project brochure, then 4.76 percent of the employee's time was spent on this activity.* Next, calculate the annual personnel costs associated with each employee. These include salary and fringe benefits. Your financial officer or bookkeeper can help you determine this figure. For example, the annual personnel costs for a certain full-time employee might be $20,847 (i.e., annual salary of $17,500 plus fringe benefits paid by the employer -- Social Security, $1,172.50; health insurance, $480; Workers' Compensation, $84.50; and retirement plan, $1,610). Of course, actual figures will depend on the fringe benefits paid by your organization. Remember, part-time employees often receive reduced benefits.

When you establish an annual personnel cost figure for each employee, you can determine the personnel costs for each activity. For example: A half-time employee is paid half the salary and fringe benefits of the full-time employee ($10,426.50), and the half-time employee has spent 4.76 percent of his or her time developing a brochure. The personnel cost for the brochure is $496.16.** You can record the dollar amounts for each staff person for each activity on a form like the one in Appendix A.

Nonpersonnel Costs

Nonpersonnel costs are all those costs -- excluding personnel costs -- paid for directly with project funds. Categories of nonpersonnel costs usually are identified in a budget's line items: telephone, postage, equipment,

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*5 divided by 105 equals 0.04762.

**4.76 percent of $10,426.50 equals $496.16.

supplies, travel, space rental, utilities, maintenance, and fees paid for non-salaried persons.

Assigned costs. Some nonpersonnel costs can be assigned easily to a particular program component or activity. For example, travel costs for home visitors can be assigned to the home-based services component, or the purchases of classroom equipment and supplies can be assigned to the classroom-based services component. To assign these costs to the appropriate components and activities, use the same code system developed to log personnel time.

Keeping track of nonpersonnel expenditures according to program component may require some bookkeeping adjustments. Or, keep a separate set of books. Often an appropriate code can be added to your purchase requisition, travel expense voucher, or other routine paperwork that documents your expenditures. Of course, this activity is much easier to do as the expenditures occur, rather than weeks or months later when original purposes may be less clear.

When summarizing your nonpersonnel costs, deal with assigned costs first, then prorate the remaining costs. You can use the forms in Appendices A and D.

Prorated costs. Some nonpersonnel costs cannot be assigned easily to a particular component or activity because these costs relate to all program components, such as: local telephone, postage, general office supplies, utilities, etc. These types of nonpersonnel costs can be prorated -- i.e., divided among various components and activities. But a definite procedure and rationale must be developed to determine the portion of the costs assigned to each component.

Some nonpersonnel costs can be prorated according to the percentages of time staff devote to particular components. For example: Time logs show that 30 percent of total staff time is devoted to the home-based services component, so 30 percent of telephone, postage, utilities, etc., is assigned to

that component. The rationale is that these types of nonpersonnel costs generally support staff in their work and, therefore, should parallel generally the time spent by staff on each activity.

If a program has three full-time staff who recorded total work years of 210, 230, and 215 days and two half-time staff who estimated 105 and 115 days, then the total for all staff for all activities is 875 workdays. Three staff members developed and produced a brochure: one logged five days of work on the brochure; one logged one-half day; and one logged one day -- a total of 6.5 days. The percent of staff time spent on this activity was 0.74.*

Following this procedure, you can calculate percentages for each activity and list the percentages on a form like the one in Appendix D. Use this figure to prorate nonpersonnel costs to each activity. For example, if the total nonpersonnel cost to be prorated is $14,300, then the amount prorated to the brochure activity would be $105.82.** As with assigned costs, you may wish to prorate nonpersonnel costs to each whole component rather than each individual activity. List the prorated costs by activity or component on the appropriate line on a form like the one in Appendix A.

In-Kind Contributions

In-kind contributions are other sources of support for your program for which you do not pay directly with project funds -- services provided to your program by another agency, volunteer support, and donations of equipment and supplies. Office and classroom space and utilities may be included if their cost does not appear as a direct expenditure or overhead cost in your budget.

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*6.5 days divided by 875 equals 0.00743, or 0.74 percent.

**$14,300 multiplied by 0.74% (0.0074) equals $105.82.

In-kind contributions can represent a significant portion of a program's total resources. Each in-kind contribution should be identified and described for a cost analysis. If possible, the cost of the contribution had it been purchased should be determined and listed on a form like the one in Appendix A.

Identifying in-kind contributions shows the true and total costs of your program. Another project might have to purchase those resources or services in order to replicate your program. These contributions can also reflect the support the community gives to your program.

Chapter Three

IMPLEMENTING THE SYSTEM

After you develop a design that appears to meet your needs for a cost analysis system, consider the steps you will follow to implement the design.

These activities can help you avoid some early difficulties:

** Plan an initial orientation and training session for your staff, especially for those who will be collecting the data.

** Gather and summarize data for a trial period (one to three weeks) to see how procedures and responsibilities are understood and if they in fact work.

** With information from the trial period, review and refine plans and procedures as needed.

** Share the results of the trial period and any revisions with your staff and agency administrator.

** If the plan looks right, begin full implementation; if not, conduct another trial period.

Trial

Sometimes decisions that seemed positive during the design stage prove to need restudy. Many activities are more time-consuming than anticipated, and distinctions for recording time and other costs may be confusing when put to use. The trial period of gathering and summarizing data can help solve problems before they affect the quality of your cost data.

Staff Support

Maintaining staff support for the entire cost analysis effort is crucial. Sometimes, after the trial period, staff will find their new responsibilities

tedious. Keeping time logs and coding nonpersonnel expenses can be burdensome and can appear to be of little value compared to other staff responsibilities. When staff neglect their record keeping responsibilities, the completeness and accuracy of your cost analysis data will suffer. Worse, staff morale may dip if they begin to resent the burdens of record keeping or if they believe it is being used as evidence of job performance. These negative possibilities must be avoided.

People tend to support decisions and efforts they help shape. So assure frequent opportunities for staff involvement in decision-making, especially during the design stage and the trial implementation period. Your staff's commitment will be nurtured by participation in decision-making.

Staff tend to support data collection when they can see how the data are being used and that the data are useful (rather than harmful) to them. Periodic reports to your staff will show how their data are used and can renew their belief that the effort is worthwhile. Time-log data, for example, can show your staff where they direct their efforts, and individual staff members can analyze their own time-log data to make personal workplan decisions. Unless at the outset it is understood as a function of your system, avoid using any data from your cost analysis to determine staff performance.

Administrative Support

The cost analysis effort must receive administrative support throughout implementation, especially if data collection is extensive and extends over a period of months or years. Your system may require regular access to administrative financial records or require modifications to bookkeeping procedures. Certainly, you will need the approval of your administrative superiors to conduct a cost analysis.

Administrative support can be maintained by using many of the same strategies used to hold staff support -- assure their participation in the initial design and throughout implementation; assure them that your system can and does provide useful information.

Data Control and Confidentiality

To implement the cost analysis system, you will need access to information of a somewhat confidential nature, such as salaries of individual staff members. Be careful about who has access to this information and how it is used. Develop policies that establish appropriate and inappropriate uses of the data, and determine what information might require prior approval before being shared with anyone outside your program.

Leadership and Coordination

Designate someone on your staff (or yourself) as the coordinator or task leader. The coordinator assures that data is gathered routinely, troubleshoots any problems, reports periodically to staff and administration, and is the first contact point for anyone with questions about the cost analysis effort. The coordinator needs the full support of the program director, other administrative officers, and the staff.

Chapter Four

ANALYZING THE COST DATA

Analyzing your cost data means organizing it in a way that will reveal answers to your specific questions and address the specific needs of your audiences. The way you organize your data, then, depends on those questions and needs. The remainder of this chapter provides some general suggestions for organizing cost data.

Analyzing Total Program Costs

A line-item budget is the most common way to organize cost data. Total program costs are divided into categories (line items), such as personnel costs, travel, supplies, equipment, contractual obligations, telephone, postage. overhead, etc. A more detailed understanding of your total operating expenses can be provided by a "line-item budget matrix" (as shown in Figure 4). The column on the far right displays the traditional line-item costs. The total cost of each program component is displayed across the bottom of the matrix. The columns in the middle of the matrix show a breakdown of costs for each program component by line item.

The budget matrix has several advantages. First, it displays your entire budget in detail on a single page. Second, because it is a line-tiem budget and a program component budget, you can see your total program costs simultaneously from both perspectives. Third, it provides a detailed breakdown of each program component and each line item. The matrix allows you to see how

Figure 4

SAMPLE Line-Item Budget Matrix

1983-1984

Line-Items		Program Components: Classroom & Parent Serv. (3-5)	Home-Based Related Parent Serv. (0-3)	Staff Development	Public Awareness	Administration and Management	Development & Dissemination of Materials	Line-Item Subtotals
PERSONNEL COSTS								
Project Director	Salary							
	Fringes							
Teacher	Salary							
	Fringes							
Home Teacher	Salary							
	Fringes							
Parent Worker	Salary							
	Fringes							
Teacher Aide (1/2 time)	Salary							
Administrative Assistant	Salary							
	Fringes							
Subtotal Personnel Costs	Salary							X
	Fringes							
NON-PERSONNEL COSTS								
Travel								
Supplies								
Equipment								
Telephone								
Postage								
Contractual								
Other								
Subtotal Non-Pers. Costs								X
Overhead								
Component Subtotals								
GRAND TOTAL								

the subtotal for a given program component was calculated and the cost of a given line item across each component. Fourth, it helps compare costs by program component.

The budget matrix approach can be applied in several ways. For example, if your program has multiple sources of funding, you may choose to develop a separate budget matrix page for each source of money. Or you may display your program components (or major activities under each component) down the left side of the page and sources of funds across the top of the page.

The budget matrix can help organize your cost data, but it is not necessarily an effective way to report program costs to external audiences. You will not need or want to report all costs to every audience. The matrix is a general source of cost information from which you can extract and report relevant data to various audiences (see Chapter Six, Developing Reports).

Separating Costs

It is likely that the analysis of your cost data will require you to separate costs in ways that will meet specific cost information needs.

Here are some ways to separate costs:

** separate costs of program operations and costs of model development;

** separate one-time or start-up costs and ongoing costs;

** separate costs essential to program operations and costs that can be eliminated without jeopardizing the quality or quantity of your services;

** separate costs which might be provided in the future as in-kind contributions or which might cease to be provided.

Analyzing Unit Costs

As you analyze your cost data, you may want to determine the costs of defined units of service, such as:

** one hour of physical therapy;

** a typical home visit;

** one day of classroom instruction;

** a typical parent meeting.

** In a cost analysis system, a child or a family also can be a unit of service.

Unit costs usually (but not always) are shown as a ratio --e.g., cost per child, cost per home visit, cost per classroom. To determine a unit cost ratio, first determine which program activities and related costs belong to the unit. Second, determine an appropriate time frame. Third, calculate the total cost for all relevant activities within that time frame. Fourth, determine the total number of units involved within that time frame. Finally, divide the total cost by the number of units.

Analyzing unit costs can help internal budget planning and the setting of fee schedules. Also, unit cost figures can help with fundraising by providing concrete examples of what a contribution could buy (a day of classroom instruction, one month of child/family services, etc.). Unit costs can be used to make cost comparisons (compare the cost per child of center-based and home-based service programs, or compare the difference between per-child costs for handicapped and nonhandicapped children in a mainstreamed classroom).

The analyses described here can be accomplished with simple office machines and calculators. However, if a microcomputer is available, consider using it. Computer programs of this nature are fairly simple.

Chapter Five

MAKING AND INFLUENCING DECISIONS

Getting cost information in order to help make or influence internal or external decisions is a major function of any cost analysis system.

Internal Decisions

Cost information can contribute to a wide array of internal decisions, as the following list illustrates:

** Justify budget revisions and projections;

** Support the need to modify program operations, e.g., show that a proposed change would save money or provide more or better service at the same cost;

** Establish a fair schedule of fees for project services;

** Justify specific program needs, e.g., additional staff, new equipment, expanded facilities;

** Modify inefficient program practices.

Cost analysis information can provide program and administrative decision makers with a fresh perspective.

External Decisions

Cost information can be used to influence decisions and judgments made by people external to the program and its agency. Figure 2 (Chapter 1) describes several categories of external audiences, and Figure 5 (next page) shows that each category of audience suggests a specific type of decision or judgment than affects the goals and operation of the project.

Figure 5

Types of Decisions/Judgments by Categories of External Audiences

Categories of Audience	Types of Decisions/Judgments
accountability audiences	Has the program operated in a responsible manner and within budget? Has it accomplished its goals?
future funding sources	Should we fund this program or not? Should we fund the program at the level requested?
policy makers	Based on new information, should we establish or modify our policy concerning services for young handicapped children and their families? Does this program meet our policy guidelines?
Advocacy groups	Should we support this program and its goals? Are goals justified in terms of benefits to children and families? Are the program's costs reasonable?
Other service providers	Do we wish to replicate or adopt all or part of this program? Can we afford it?

Formulating Economic Arguments

In most cases, a project's cost information is used to formulate economic arguments that support that program. The economic arguments should accompany other supporting arguments such as evidence of child progress and family benefits.

Two types of economic arguments that support early intervention are used frequently by programs seeking funding or support.

The cost of the program is reasonable and affordable for the benefits it provides. This most basic argument has three parts: 1) the benefits the program provides; 2) the costs of the program, and 3) a comparison of the program and its costs to something else. Assuming that the program's benefits are presented clearly and that the cost figures are accepted as accurate, it is the comparison that becomes the critical element in the success of this argument.

If an audience tends to make most funding decisions based on a cost-per-child figure, and if that figure is favorable to the program (does not exceed the audience's expectations), then cost per child should be highlighted. If the comparison does not appear to be favorable, the argument should explain and justify rather than ignore the comparison.

Sometimes, the external audience will not have in mind a usual and customary cost figure with which to make comparisons. In that case, the program's argument can help shape the audiences thinking by offering fresh comparisons, such as the program's costs compared to the costs of other early intervention programs; the costs of early intervention compared to costs of special education for school-aged children; or the program's benefits to children and families compared to the alternative consequences of doing nothing.

When the external audience is a funding source the most obvious comparison is of the amount of money requested and the amount of money they can provide. The funding source must be able to afford the program no matter what the benefit.

Whatever the comparison your audience will likely make, you must be aware of it before you present your cost data. And your conclusion always should be: "This program is needed, affordable and worth supporting."

Another economic argument used to support early intervention states: Money invested in early intervention programs will be recovered later by reducing or avoiding other costs.

The appropriateness of this arguement and how it should be formulated depends on the given program and the types of children and families it serves. A program that serves mildly handicapped preschoolers might attempt to show savings in the costs of subsequent special education. A program serving severely handicapped children might claim savings of money that would have been spent on institutional care.

In any case, this type of economic argument will need cost information other than that produced by the program's own cost analysis. Studies showing actual or projected savings through early intervention are listed in Appendix E for your reference.

While generally accepted as valid, this type of economic argument may not always help. Some audiences may not be interested in the results of other studies, or they may wish to deal only with your program's cost data and benefits. They may find too vague and abstract the idea of projecting savings ten to fifteen years in the future.

This type of economic argument can be dangerous when it is too successful and creates the impression that early intervention is worthwhile only if it

can save money later, and disregards those immediate and long-term benefits to children and families that can't be easily assessed in monetary terms.

If early intervention programs are to survive and grow in the current economic climate, it is essential that they formulate sound economic arguments to support their programs. However, it is important that a balance be maintained between arguing for early intervention in economic terms and in terms of meeting important human needs.

Chapter Six

DEVELOPING REPORTS

This chapter discusses the mechanics of developing reports: matching effective presentation methods and the purposes and characteristics of the audiences, assigning necessary roles and responsibilities, setting timelines, and generating ideas for graphic displays. The actual contents of any report will depend on the cost data generated from your analysis and your ability to present an effective cost argument.

Presenting cost information requires the same attention to planning and detail required for any presentation, e.g., speeches at conferences and workshops, articles in professional journals, public relation events (newspaper, radio, and television), etc. A variety of communication models can be used to communicate effectively with a specified audience for a specific purpose.

This chapter will explore the following model:

WHO will present WHAT information to WHOM, HOW, WHEN,
and with what EFFECT.

The specifics of each of the six parts of this model may depend on the information generated by one or more of the other parts. For example, the message to be presented (WHAT) depends in part on the characteristics of the audience (WHOM), what you expect the audience to do with the information (EFFECT), and the abilities of the presentor (WHO).

The authors thank Tom Scheid of Columbus, Ohio, for the information contained in this chapter. -- ed.

A Communication Approach

WHO: Assign these tasks to individuals or specific workgroups: 1) develop the first draft of the report; 2) review and revise the drafts; 3) produce the final copy; 4) produce any desired audiovisual aids; 5) reproduce and distribute the report. If a verbal presentation will be made, develop a script and decide who will make the presentation. (Who can make the most effective presentation given the characteristics of the audience? Should the person be someone on your staff? Should the presentation involve two or more people?)

WHAT: The quantity, amount of detail, and type of cost data to be presented depends on the audience's needs and their ability to use the data. Since cost information should not be presented alone, decide the amount of information about your program's activities and accomplishments and the kind of noneconomic arguments you will present. Also decide if you will need to present information that validates the procedures used to analyze your program costs.

WHOM: The procedures outlined in Chapter One should produce a fairly detailed list of audiences. Now, rank that list in terms of timing and importance. In addition to the information already collected find out more about your audiences: Who actually controls decisions? What issues should be avoided? Do the decision makers tend to prefer information presented in a certain way? How familiar are they with your program? How much time will they devote to the presentation? To what will they compare your data? An effective presentation depends critically on your understanding of the audience and your ability to anticipate their reactions.

HOW: Match the method of presentation to the audience, type of message, your purposes, and the situation or setting in which the presentation will be

received: person-to-person contacts (individually or in a group), print, audio-visual format (slidetape, videotape, film, filmstrip, etc.), or a combination of methods. A most persuasive approach combines individual contacts with print materials. Person-to-person communication allows immediate feedback and increases the chance for complete understanding. However, individual contacts are impossible in many circumstances. Consider the resources needed to produce materials necessary for any presentation.

WHEN: Often, the timing of the presentation is absolutely critical. A request for funds from a local school board one week after budget decisions have been made probably will be unsuccessful no matter how well presented.

EFFECT: What do you expect the audience to do as a result of the presentation? The procedures outlined in Chapter One should help you determine the specific effects you desire with each audience. If the desired effects are similar for each audience and the audiences have similar characteristics, you may be able to develop one presentation that is effective for several audiences. Otherwise, tailor a presentation to fit each audience and effect. Consider if the projected effort is worth the anticipated benefits. Possibly, there are equally effective but more efficient ways to accomplish the same outcome. Finally, determine if the outcome was accomplished and devise methods to collect and use the audience's feedback to improve future presentations.

Figure 6 displays a Cost Reporting Worksheet which can help answer many of the questions posed by this communication model. Review the worksheet several times before finalizing the answers to assure interaction among the six parts of the model.

Figure 6

COST REPORTING WORKSHEET

A. WHO WILL PRESENT THE COST INFORMATION?

Who has the time to do it? _____

Who has the authority to do it? _____

Who has the responsibility to do it? _____

Who can speak before this type and size audience? _____

Who has been effective in working with this particular audience? _____

B. WHAT IS THE MESSAGE?

What specific types of information are required? _____

What specific types of information should be added? _____

What should be the length of the report or presentation? _____

What level of language should be used? _____

What information will be presented with the cost data to make the message more effective? _____

C. WHO IS THE AUDIENCE?

Is there more than one audience? If so, who are they? _____

Will the audience likely be receptive? _____

Are there issues to be avoided? _____

Does the audience prefer particular reporting styles? _____

Figure 6 (continued)

Do particular persons in the audience control the decisions? _____

How many people will receive the information? _____

Can certain audiences be grouped together for a single presentation? _____

To what will the audience probably compare your cost data? _____

D. HOW WILL THE INFORMATION BE PRESENTED?

Will there be a written report? _____

How will a written report be distributed? _____

Will there be a verbal report? If so, will it be an individual or a group presentation? _____

Will the presentation be formal or informal? _____

What types of audiovisual displays should be used? _____

E. WHEN WILL THE INFORMATION BE PRESENTED?

What is the earliest date you can have the presentation ready? _____

How much time do you have? _____

Will the presentation occur more than once? If so, when? _____

What is the most effective time to present the information? _____

Figure 6 (continued)

F. WHAT EFFECT DO YOU WISH TO ACCOMPLISH?

Are you trying to effect a decision? _____

Are you informing an audience? _____

Are you motivating an audience? _____

Are you trying to get ideas or reactions from the audience? _____

How will you use the feedback from the audience? _____

Can you define outcomes or actions that you want from an audience? _____

Will the expected effect be worth the effort you put into it? _____

How will you determine if the outcome has been accomplished? _____

Tips for Effective Presentations

** Written -- Tell them what you are going to say, say it, and then tell them what you said; within each part, list the most important information first.

-- Limit the amount of information; don't give the reader more than they need.

-- Use highlighting techniques to direct the reader to important portions of the document, e.g., underlining, different type styles, white space, boxes, etc.

-- Personlize the text by using familiar words and pronouns.

-- All tables, graphs, charts, and other figures should be self-explanatory, with complete titles, notes, and references.

** Verbal -- Use varied presentation styles to maintain interest, e.g., panel discussions, question and answer section, audiovisuals, etc.

-- Practice your presentation and get feedback from someone unfamiliar with the topic.

-- Actively involve your audience as much as possible, e.g., group responses to questions, blank spaces on handouts for note taking, discussion groups, etc.

-- Be sure to provide enough time for audiences to glean important information from visual displays.

** Visual -- Use visual displays (charts, graphs, and tables) as often as possible (especially for numerical data).

-- Make sure all audiovisual products are technically sound.

-- Make visual displays large and simple.

-- When visual displays are complex, provide simple examples to help the audience interpret the information.

Ideas for Graphic Displays

Tables, bar graphs, line graphs, pie charts, and other figures are excellent ways to summarize cost information. Tables especially are useful to

Figure 7

Expenditures* for Project DO GOOD

Direct Services		Support and Management Functions	
Classroom and Parent Services (3-5)	$ 64,742.60	Staff Development	$15,748.20
Home-based and Related Parent Services (0-3)	40,245.40	Public Awareness	5,249.40
		Administration and Management	13,496.40
Subtotal	104,988.00	Development and Dissemination of Materials	17,498.00
		Subtotal	69,992.00

Total Operating Expenses for 1981-82

$174,980.00

* Note: The expenditures listed for each area include personnel costs and non-personnel costs (travel, supplies, building rent, and maintenance, etc.).

present lists of facts or exact numerical data. Charts and graphs help show general trends, approximate figures, or comparisons between groups of data.

Sometimes the same information may be presented in different ways, depending on your purpose and the type of audience. Figure 7 shows one way to present program expenditures to an audience concerned with accountability; Figure 8 presents the same information to an advocacy group.

The line graph can show quickly the differences between two sets of costs and show a trend over time. Figure 9 shows the increase in costs for direct services and the decrease for administration through the first three years of a project's development.

Bar graphs can show the components of costs and compare them over time. Figure 10 shows estimated operating costs for project DO GOOD for four years.

A pie chart shows how the various parts make-up the whole. Figure 11 shows a pie chart that displays funding sources tapped by project DO GOOD.

Figure 8

Where Project DO GOOD's Dollar* Went

Direct Services

Support and Management Functions

* Note: The average amount expended in each area includes personnel costs and nonpersonnel costs (travel, supplies, building rent and maintenance, etc.).

Figure 9

A Comparison of Costs of Direct Services and Administration

Project DO GOOD Increased the Percentage of Budget Funds Expended for Direct Services and Decreased Administrative and Development Costs

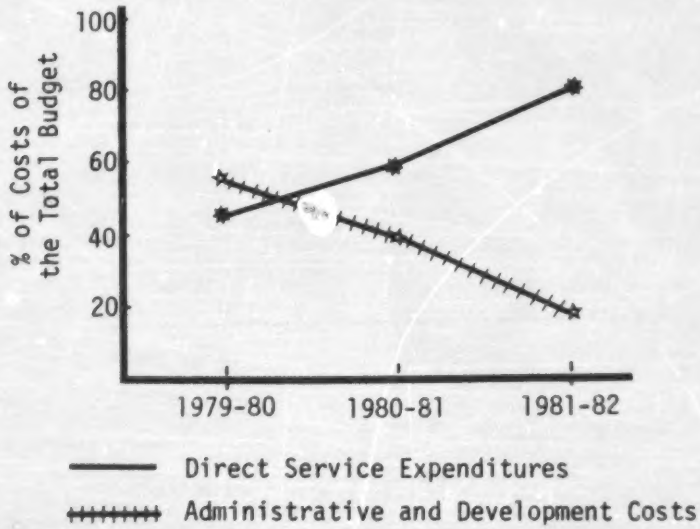
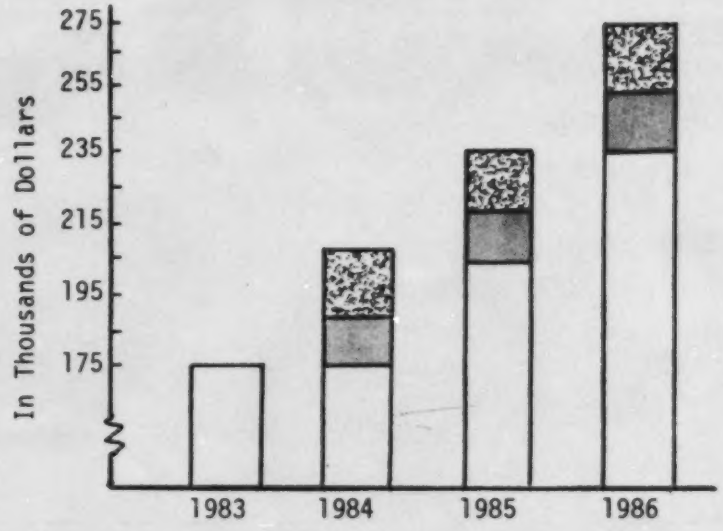


Figure 10

Four-Year Cost Estimates for Project DO GOOD



Basic Budget from Previous Year

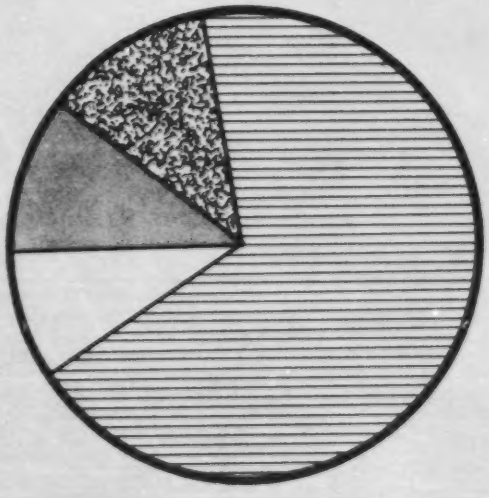
Increases in Budget Accountable to Inflation (Assuming a 7% Steady Inflation Rate)

Increases to Meet Incremental Client Needs (70% of All Clients Serviced in 1983)

Figure 11

Project DO GOOD's Funding Sources

1981-82



Federal HCEEP Grant -- 69%

Contributions from Individuals -- 12%

Local Education Agency -- 10%

State Preschool Grant -- 9%

APPENDICES

Appendix A

Sample Form to Capture Program Costs

for

Project DO GOOD

Project DO GOOD
Summer 1983

PROJECT DO GOOD's PROGRAM COSTS SUMMARY FORM

PROGRAM OUTLINE OF COMPONENTS/ACTIVITIES	PERSONNEL COSTS						NON-PERSONNEL COSTS		IN-KIND CONTRIBUTIONS	TOTAL PROGRAM COSTS
	PROJECT DIRECTOR	TEACHER	HOME TEACHER	PARENT WORKER	TEACHER AIDE (1/2 Time)	ADMINISTRATIVE ASSISTANT (1/2 Time)	ASSIGNED COSTS	PRORATED COSTS		
I. Classroom/Parent Services (3-5)										
A. Child Find Activities for Children Ages 3-5										
1. Public Relations										
2. Screening										
a. Screening Training Activities										
b. Screening Activities										
c. Screening Disposition										
I.A.--This line is for prorated costs and subtotals										
B. Intake/Referral/IEP Development for Children Ages 3-5										
1. Diagnostic Evaluation										
2. Placement/Referral Meeting										
3. Educational Assessment										
4. Individual Educational Program										
I.B.--This line is for prorated costs and subtotals										
C. Classroom Services for Children Ages 3-5										
1. Lesson Planning										
2. Instruction Activities										
3. Food Services										
I.C.--This line is for prorated costs and subtotals										
D. Parent Services for Children 3-5										
1. Group Parent Meetings										
2. Individual Parent Meetings										
I.D.--This line is for prorated costs and subtotals										
E. General Admin. (3-5)										
1. Planning Activities										
2. Record Keeping										
3. Staff Supervision and Meetings										

Project DO GOOD
Summer 1983

PROJECT DO GOOD's PROGRAM COSTS SUMMARY FORM

PROGRAM OUTLINE OF COMPONENTS/ACTIVITIES	PERSONNEL COSTS						NON-PERSONNEL COSTS		IN-KIND CONTRIBUTIONS	TOTAL PROGRAM COSTS
	PROJECT DIRECTOR	TEACHER	HOME TEACHER	PARENT WORKER	TEACHER AIDE (1/2 TIME)	ADMINISTRATIVE ASSISTANT (1/2 TIME)	ASSIGNED COSTS	PRORATED COSTS		
(Continued) I.E.--This line is for prorated costs and subtotals										
This line for prorated costs for Component I										
This line for subtotals for Component I										
II. Home/Related Parent Services (0-3) — A. Child Find Activities for Children Ages Birth to 3 — 1. Public Relations										
2. Screening — a. Training Activities										
b. Screening Activities										
c. Screening Disposition										
II.A.--This line for prorated costs and subtotals										
B. Intake/Referral/IEP Development for Children Ages Birth to 3 — 1. Diagnostic Evaluation										
2. Placement/Referral Meeting										
3. Educational Assessment										
4. Individual Educational Program										
II.B.--This line for prorated costs and subtotals										
C. Home-Based Services Birth to 3 — 1. Planning for Home-Visit										
2. Home-Visit										
II.C.--This line for prorated costs and subtotals										
D. Related Parent Serv. Birth to 3 — 1. Group Parent Meetings										
2. Individual Parent Meetings										
II.D.--This line for prorated costs and subtotals										

Project DO GOOD
Summer 1983

SUMMARY SHEET FOR PERSONNEL TIME AND PERCENTAGES FOR ALL COMPONENTS AND ACTIVITIES

Project DO GOOD

PROGRAM OUTLINE OF COMPONENTS/ACTIVITIES			TIME IN PERSON DAYS							PERCENTAGES						
			Individual Staff's Person Days						Total Person Days Per Activity	Total Percentages Per Activity	Individual Staff's Percentages					
III. Staff Development	A. Initial Training and Orientation															
	B. On-Going Individual Development	1. Staff Needs Assessment														
		2. Individual's Development Activities														
		3. Group Development Activities														
	Totals for Component III.															
IV. Public Awareness	A. Public Relations Planning															
	B. Developing Materials															
	C. Public Relations															
	Totals for Component IV.															
V. Admin. & Management	A.	1. Reports and Correspondence														
		2. Staff Development														
		3. Record Keeping														
		4. Planning Activities														
		5. Staff Supervision and Meetings														
		6. Purchasing Supplies and Equipment														
		7. Interactions with Fiscal Agency														

Project DO GOOD
Summer 1983

PROJECT DO GOOD'S PROGRAM COSTS SUMMARY FORM

PROGRAM OUTLINE OF COMPONENTS/ACTIVITIES	PERSONNEL COSTS						NON-PERSONNEL COSTS		IN-KIND CONTRIBUTIONS	TOTAL PROGRAM COSTS
	PROJECT DIRECTOR	TEACHER	HOME TEACHER	PARENT WORKER	TEACHER AIDE (1/2 TIME)	ADMINISTRATIVE ASSISTANT (1/2 TIME)	ASSIGNED COSTS	PRORATED COSTS		
V. (Continued) A. (Continued) 4. Planning Activities										
5. Staff Supervision and Meetings										
6. Purchasing Supplies and Equipment										
7. Interactions with Fiscal Agency										
V.A.--This line for prorated costs and subtotals										
B. Fund Raising Activities										
C. Advisory Board										
D. Program Evaluation 1. Evaluation of Classroom Services										
2. Evaluation of Home-Based Services										
3. Evaluation of Staff Development										
V.D.--This line for prorated costs and subtotals										
This line for prorated costs for Component V										
This line for subtotals for Component V										
VI. Dev./Diss. of Materials for Other Professionals A. Planning Activities										
B. Developing Materials										
C. Dissemination of Products										
This line for prorated costs for Component VI.										
This line for subtotals for Component VI										
GRAND TOTALS ALL COMPONENTS										

Appendix B

Sample Activity Code Descriptors

for

Project DO GOOD

CODE BOOK

	Activity Code
I. Classroom/Parent Services (ages 3 to 5)	
A. Child-Find Activities for Children (ages 3 to 5)	
1. Public Relation events to generate referrals and publicize screening efforts (radio, TV, newspaper, brochures, etc.)	PR
2. Screening	
a. Screening Training Activities for staff and volunteers to conduct screening program	STA
b. Screening Activities -- selecting the sites, purchasing materials, parent contacts, and conducting the screening	SA
c. Screening Disposition -- letters to parents of children passing screening, re-screening failures, developing screening reports, and referring children in need of diagnostic evaluation	SD
B. Intake/Referral/IEP Development for Children (ages 3 to 5)	
1. Diagnostic Evaluation to determine type and extent of handicapping conditions, diagnostic report	DE
2. Placement/Referral Meeting -- parent contacts, decisions on approach placement, referrals to other services if Project DO GOOD is inappropriate, referral to educational assessment	PRM
3. Educational Assessment -- administer all assessment instruments (developmental, psychological, language, medical, etc.) and collect additional information as necessary (parents, other group care situations, etc.)	EA
4. Individual Educational Program -- summarize diagnostic evaluation, educational assessments, and other information; develop draft IEP; staff/parent meeting to refine IEP; and develop final IEP for parent signature	IEP
C. Classroom Services for Children (ages 3 to 5)	
1. Lesson Planning -- developing classroom materials, set-up, supervision, etc.	LP
2. Instruction Activities -- direct time with children (8:30-3:00 p.m. see daily schedule)	IA

	Activity Code
3. Food Services -- menu planning, food preparation, purchasing, etc.	FS
D. Parent Services for Children (ages 3 to 5)	
1. Group Parent Meetings -- planning and implementation of monthly parent meetings	GPM
2. Individual Parent Meetings -- Home visits, travel time, informal meetings, planned individual parent conferences	IPM
E. General Administration Activities for Children (ages 3 to 5)	
1. Planning Activities -- other planning activities which have not been included but relate to this component	PA
2. Record Keeping -- child progress records, parent contacts, and other record keeping	RK
3. Staff Supervision and Meetings -- weekly staff meeting about children and parents, periodic director/teacher meetings, etc.	SSM
II. Home/Related Parent Services (birth to 3)	
A. Child Find Activities for Children (birth to 3)	
1. Public Relations (same as Component I)	PR
2. Screening	
a. Training Activities (same as Component I)	TA
b. Screening Activities (same as Component I)	SA
c. Screening Disposition (same as Component I)	SD
B. Intake/Referral/IEP Development for Children (birth to 3)	
1. Diagnostic Evaluation (same as Component I)	DE
2. Placement/Referral Meeting (same as Component I)	PRM
3. Educational Assessment (same as Component I)	EA
4. Individual Educational Program (same as Component I)	IEP

	Activity Code
C. Home-Based Services for Children (birth to 3)	
1. Planning for Home-Visit -- preparing materials, developing parent training activities, scheduling, etc.	PHV
2. Home-Visit -- travel time and contact time with parent and child in the home	HV
D. Related Parent Services for Children (birth to 3)	
1. Group Parent Meetings (same as Component I)	GPM
2. Individual Parent Meetings -- any individual parent conferences outside of the home	IPM
E. General Administrative Activities for Children (birth to 3)	
1. Planning Activities (same as Component I)	PA
2. Record Keeping (same as Component I)	RK
3. Staff Supervision and Meetings (same as Component I)	SSM
III. Staff Development	
A. Initial Training and Orientation -- those activities required at the beginning of the project and for new staff members	ITO
B. Ongoing Individual Development	
1. Staff Needs Assessment -- review competencies, identify training needs, develop each person's staff development plan	SNA
2. Individual's Development Activities -- actual training events (workshops, conferences, courses, readings, etc.)	IDA
3. Group Development Activities -- annual retreats, technical assistance, staff meetings for training, etc.	GDA
IV. Public Awareness	
A. Public Relations Planning -- assessment of general public information level, select specific target mean, select media form, set timelines, develop goals, etc.	PRP
B. Developing Materials for public relation events (news releases, brochures, audiovisual, products, etc.)	DM

	Activity Code
C. Public Relation events to accomplish goals (e.g., radio, TV, and newspaper spots; workshops; ad campaigns; etc.)	PR
V. Administration and Management	
A. General Administration	
1. Reports and Correspondence -- annual progress and budget reports to funding agency; routine and special correspondence; etc.	RC
2. Staff Recruitment -- develop job positions and interview prospective employees	SR
3. Record Keeping -- filing, personnel records, project records, etc.	RK
4. Planning Activities -- general program planning	PA
5. Staff Supervision and Meetings -- general staff meetings, six-month performance reviews, general supervision	SSM
6. Purchasing Supplies and Equipment	PSE
7. Interactions with Fiscal Agency -- meetings with executive director and fiscal officer, other necessary interactions	IFA
B. Fund Raising Activities -- contacts with private foundations, public agencies, corporations	FRA
C. Advisory Board -- recruit members, plan and conduct meetings, individual contacts, correspondence with members	AB
D. Program Evaluation	
1. Evaluation of Classroom Services (3 to 5) -- testing, observation, follow-up, and documentation of services provided	ECS
2. Evaluation of Home-Based Services (birth to 3) -- (same as ECS)	EHS
3. Evaluation of Staff Development -- documenting activities and staff reactions/satisfaction with activities	ESD

	Activity Code
VI. Development and Dissemination of Materials for Other Professionals	
A. Planning Activities -- identify audiences and information needs, select appropriate message format, determine information sources, select program activities to be highlighted	PA
B. Developing Materials -- manuals, audiovisual products, newsletters, journal articles, etc.	DM
C. Dissemination of Products -- printing copies, mailing, contacts with publishers	DP

Appendix C

Sample Daily Time/Activity Log

for

Project DO GOOD

Project DO GOOD
Summer 1983

DAILY TIME/ACTIVITY LOG

NAME: _____

POSITION: _____

TODAY'S DATE: _____

TOTAL HOURS
SPENT TODAY: _____

COMPONENT CODES

1. Classroom/Parent Services
2. Home/Center Parent Services
3. Staff Development
4. Public Awareness
5. Administration/Management
6. Development/Dissemination

ACTIVITY DESCRIPTOR CODES
(SEE CODE BOOK FOR DETAILS)

STA	Screening Training Activities	PA	Planning Activities
SA	Screening Activities	RK	Record Keeping
SD	Screening Disposition	SSM	Staff Supervision and Meetings
DE	Diagnostic Evaluation	RC	Reports and Correspondence
PRM	Placement/Referral Meeting	SR	Staff Recruitment
EA	Educational Assessment	PSE	Purchasing Supplies and Equipment
IEP	Individual Educational Program	IFA	Interactions with Parent Agency
LP	Lesson Planning	FRA	Fund Raising Activities
IA	Instruction Activities	AB	Advisory Board
FS	Food Services	ECS	Evaluation of Classroom Services
GPM	Group Parent Meetings	EHS	Evaluation of Home-Based Services
IPM	Individual Parent Meetings	ESD	Evaluation of Staff Development
PHV	Planning for Home-Visit	PRP	Public Relations Planning
HV	Home-Visit	PR	Public Relation
TTD	Initial Training and Orientation	DM	Developing Materials
SNA	Staff Needs Assessment	DP	Dissemination of Products
IDA	Individual Development Activities	O	Other
GDA	Group Development Activities		

Activity Description	Time Spend (in minutes)	Activity Description Code	Component Code	Comments

Appendix D

Sample Form for Recording Personnel Time

from Daily Logs OR Staff Estimations

for

Project DO GOOD

Project DO GOOD
Summer 1983

Summary Sheet for Personnel Time and Percentages for All Components and Activities

Project DO GOOD

Program Outline of Components/Activities				Time in Person Days							Percentages						
				Individual Staff's Person Days						Total Person Days Per Activity	Total Percentages Per Activity	Individual Staff's Percentages					
I. Classroom/Parent Services (3-5)	A.	1. Public Relations															
		2. Screening	a. Screening Training Activities														
			b. Screening Activities														
			c. Screening Disposition														
	B.	1. Diagnostic Evaluation															
		2. Placement/Referral Meeting															
		3. Educational Assessment															
		4. Individual Educational Program															
	C.	1. Lesson Planning															
		2. Instruction Activities															
		3. Food Services															
	D.	1. Group Parent Meetings															
		2. Individual Parent Meetings															
	E.	1. Planning Activities															
		2. Record Keeping															
		3. Staff Supervision and Meetings															
Totals for Component I																	

Project DO GOOD
Summer 1983

Summary Sheet for Personnel Time and Percentages for All Components and Activities

Project DO GOOD

Program Outline of Components/Activities	Time in Person Days: Individual Staff's Person Days						Time in Person Days: Total Person Days Per Activity	Percentages: Total Percentages Per Activity	Percentages: Individual Staff's Percentages					
II. Home Related Parent Services (0-3)														
A. 1. Public Relations														
A. 2. Screening a. Training Activities														
A. 2. Screening b. Screening Activities														
A. 2. Screening c. Screening Disposition														
B. 1. Diagnostic Evaluation														
B. 2. Placement/Referral Meeting														
B. 3. Educational Assessment														
B. 4. Individual Educational Program														
C. 1. Planning for Home-Visit														
C. 2. Home-Visit														
D. 1. Group Parent Meetings														
D. 2. Individual Parent Meetings														
E. 1. Planning Activities														
E. 2. Record Keeping														
E. 3. Staff Supervision and Meetings														
Totals for Component II.														

PROJECT DO GOOD'S PROGRAM COSTS SUMMARY FORM

PROGRAM OUTLINE OF COMPONENTS/ACTIVITIES	PERSONNEL COSTS						NON-PERSONNEL COSTS		IN-KIND CONTRIBUTIONS	TOTAL PROGRAM COSTS
	PROJECT DIRECTOR	TEACHER	HOME TEACHER	PARENT WORKER	TEACHER AIDE (1/2 Time)	ADMINISTRATIVE ASSISTANT (1/2 Time)	ASSIGNED COSTS	PRORATED COSTS		
II. (Continued) E. (Continued) 1. Planning Activities										
2. Record Keeping										
3. Staff Supervision and Meetings										
II.E.--This line for prorated costs and subtotals										
This line for prorated costs for Component II										
This line for subtotals for Component II										
III. Staff Development A. Initial Training and Orientation										
B. On-Going Individual Development 1. Staff Needs Assessment										
2. Individual's Development Activities										
3. Group Development Activities										
This line for prorated costs for Component III										
This line for subtotals for Component III										
IV. Public Awareness A. Public Relations Planning										
B. Developing Materials										
C. Public Relations										
This line for prorated costs for Component IV										
This line for subtotals for Component IV										
V. Admin. and Management A. (General Administration) 1. Reports and Correspondence										
2. Staff Development										
3. Record Keeping										

Project DO GOOD
Summer 1983

SUMMARY SHEET FOR PERSONNEL TIME AND PERCENTAGES FOR ALL COMPONENTS AND ACTIVITIES
Project DO GOOD

PROGRAM OUTLINE OF COMPONENTS/ACTIVITIES	TIME IN PERSON DAYS: Individual Staff's Person Days						TIME IN PERSON DAYS: Total Person Days Per Activity	PERCENTAGES: Total Percentages Per Activity	PERCENTAGES: Individual Staff's Percentages					
V. (continued) B. Fund Raising Activities														
C. Advisory Board														
D. 1. Evaluation of Classroom Services														
D. 2. Evaluation of Home-Based Services														
D. 3. Evaluation of Staff Development														
Totals for Component V.														
VI. Dev./Diss. of Mat. for Prof. A. Planning Activities														
B. Developing Materials														
C. Dissemination of Products														
Totals for Component VI.														

Appendix E

A Bibliography of Selected Cost and Benefits Reports

Bailey, P.W. & Trohanis, P.L. Benefits of Early Intervention for Special Children. Chapel Hill, NC: TADS, 1982.

Black, T., & Hutinger, P. Cost Effective Delivery Strategies in Rural Areas: Programs for Young Handicapped Children. In Making it Work in Rural Communities (a Rural Network monograph). Macomb, IL: Western Illinois University Press, 1981.

Black, T., & Hutinger, P. Effective Strategies in the Collection and Analysis of Cost Data in Rural Programs. In Making it Work in Rural Communities (a Rural Network monograph). Macomb, IL: Western Illinois University Press, 1981.

Dollars for Independence. In Report from Closerhook. Washington, DC: Closerhook, 1980.

Garland, C., Swanson, J., Stone, N., & Woodruff, G. Early Intervention for Children with Special Needs and Their Families: Findings and Recommendations. Seattle: Western States Technical Assistance Resource, 1981.

Gingold, W. Cost Accounting and Accountability for Early Education Programs for Handicapped Children. Seattle: Western States Technical Assistance Resource, 1980.

Lessinger, L.M., & Conner, J.E. Value Added: A Cost-Benefit Perspective of the Schooling Process. Raleigh, NC: Stewardship Press, 1979.

Schweinhart, L.J., & Weikart, D.P. Young Children Grow Up: The Effects of the Perry Preschool Program on Youths Through Age 15. Ypsilanti, MI: High Scope Educational Research Foundation, 1980.

Smith, B. The Argument for Early Intervention: A Fact Sheet. Reston, VA: ERIC Clearinghouse on Handicapped and Gifted Children, 1981.

Smith, B. The Cost Effectiveness of Special Education: A Fact Sheet. Reston, VA: ERIC Clearinghouse on Handicapped and Gifted Children, 1981.

Weber, C.U., Foster, P.W., & Weikart, D.P. An Economic Analysis of the Ypsilanti Perry Preschool Project. Ypsilanti, MI: High Scope Educational Research Foundation, 1978.